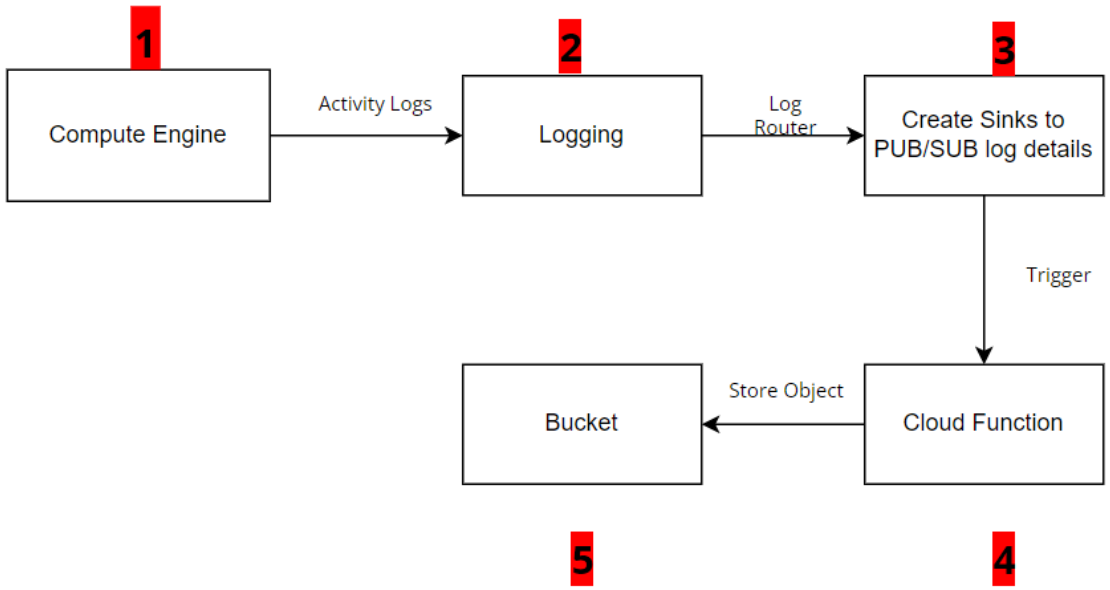
Whenever a vm is stopped the provided information should be stored in the bucket

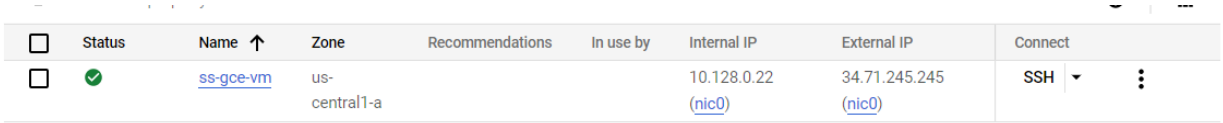
- Configure the monitoring to get the logs for vm start/stop.
- Write a cloud function with your convenient programming language to capture data about vm start time, end time , ID and Name.
- Configure monitoring to trigger cloud functions based on monitoring.
- Cloud functions should send the data to bucket.

Below GCP services are used:

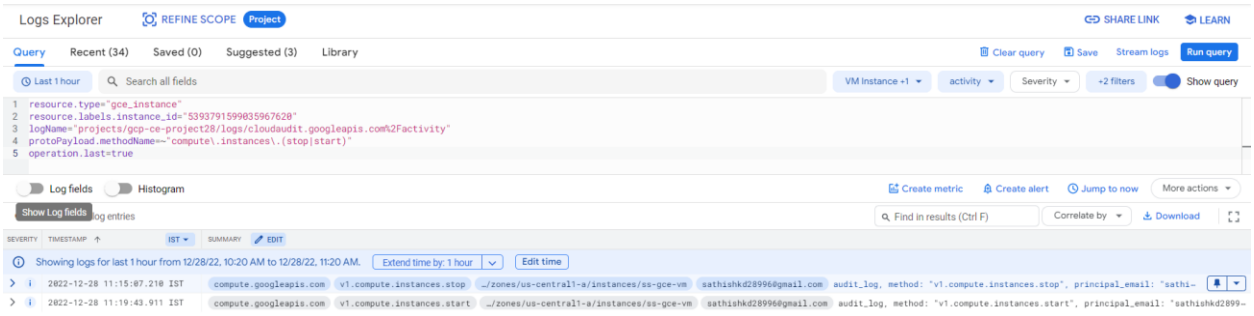
1. Google Compute Engine(GCE) – For VM instance
2. Logging – Log filters to fetch the start/stop details of VM
3. Sinks – Sinks with PUB/SUB to trigger the cloud function
4. Cloud Function – To fetch the details and store as object in Bucket
5. Bucket – Object stored in bucket



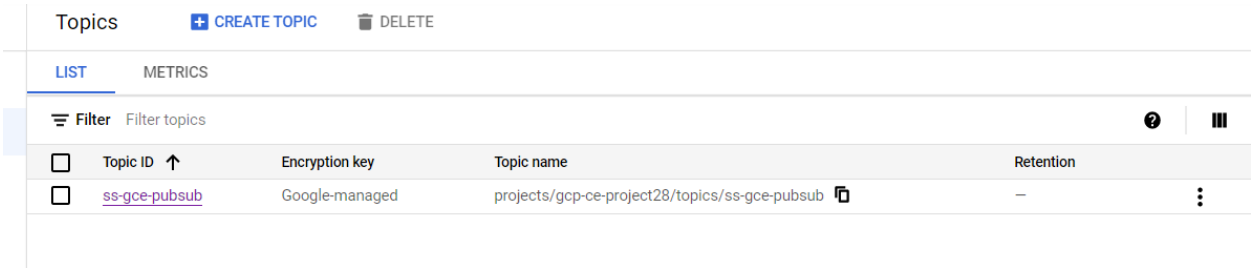
1. Creating GCE instance



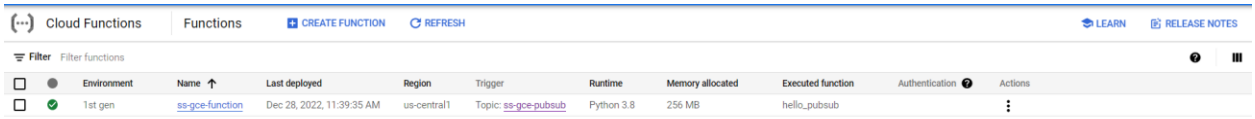
2. Logging the VM activity logs with necessary filter to fetch the start/stop VM details



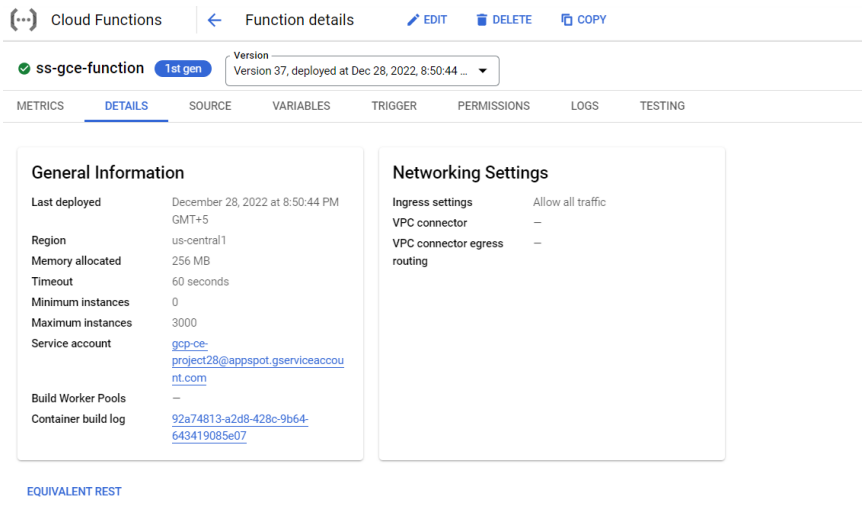
3. Using Log Router, route the log file to create Sink and configure the destination to PUB/SUB topic with above log filter
4. Before configuring, PUB/SUB topic needs to be created

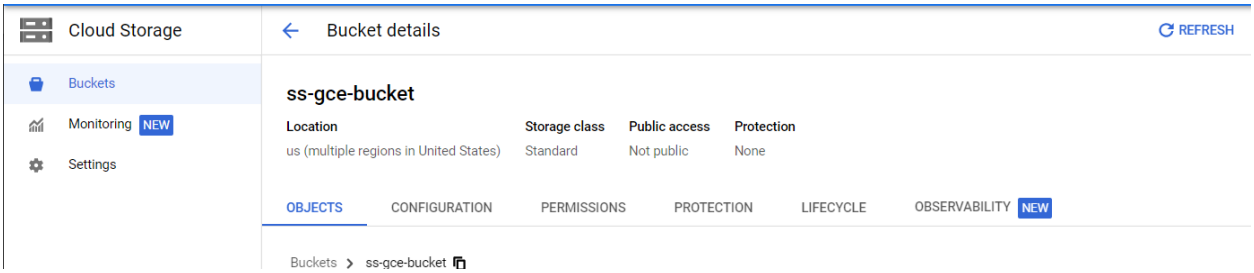


5. Trigger cloud function from PUB/SUB topic



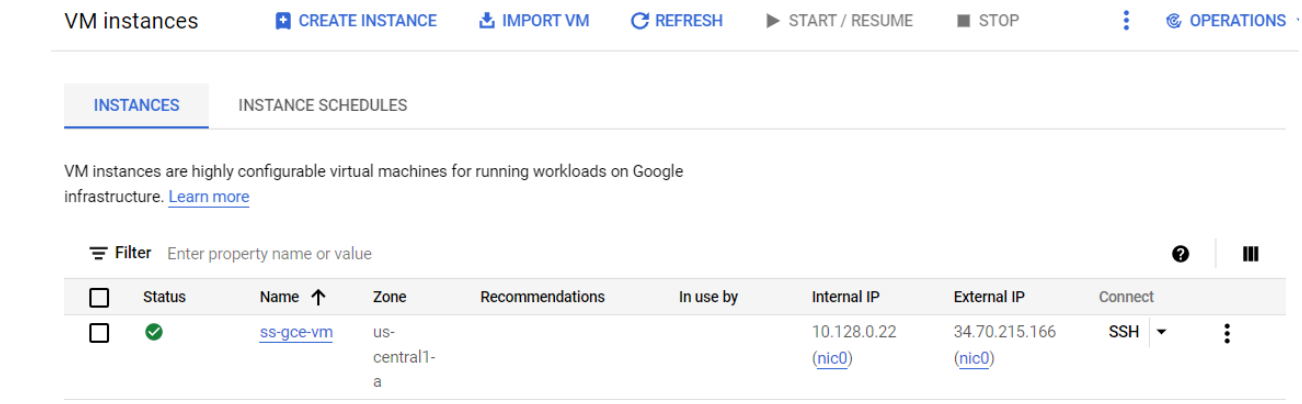
6. Below cloud function and bucket has been created





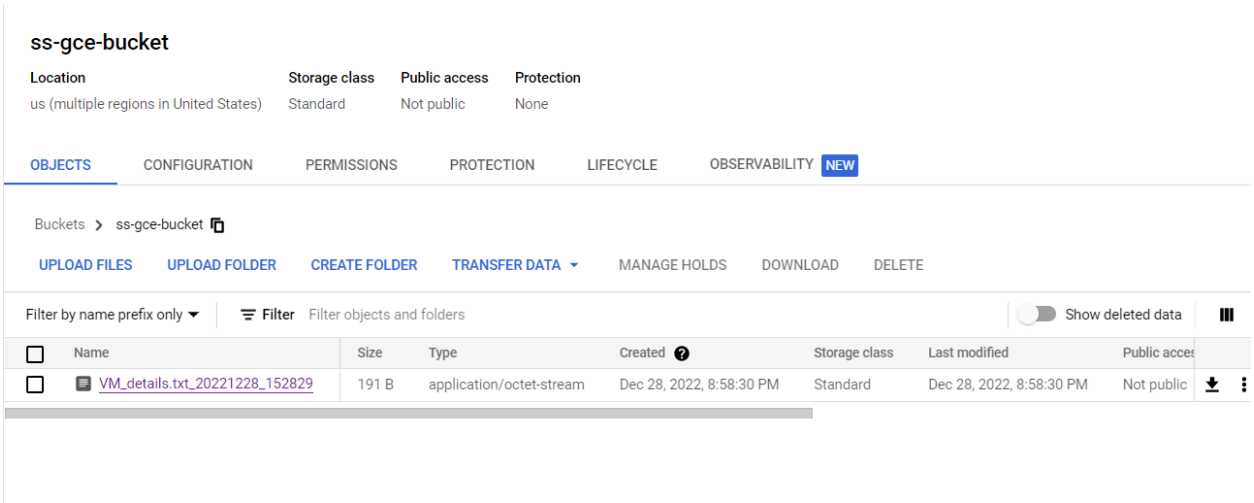
Test Scenario 1: When VM is started

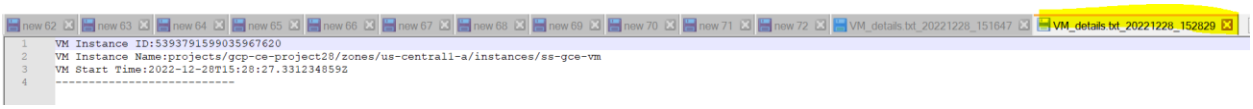
- **VM instance started and triggered the cloud function**



- **Cloud function log generated**

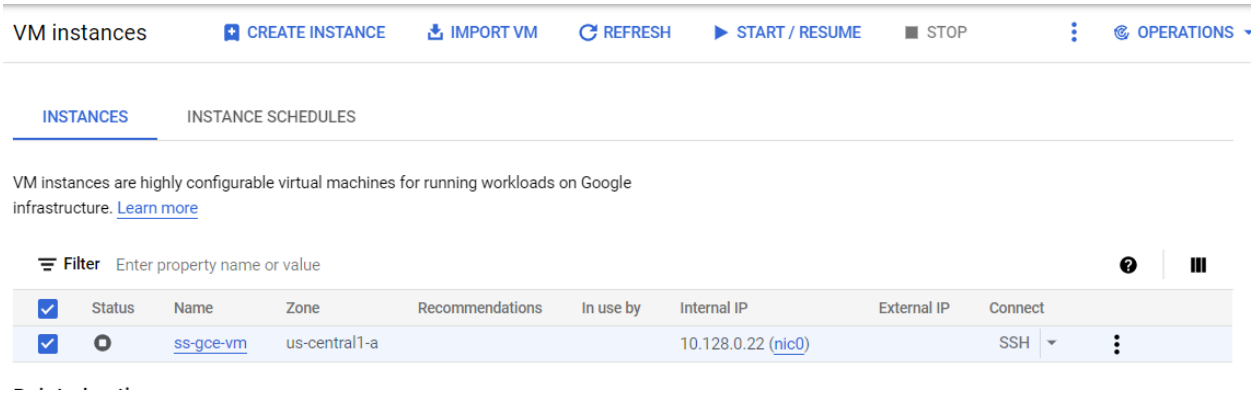
- **Text file has been generated and available in the bucket**
- **Downloading and viewing it**





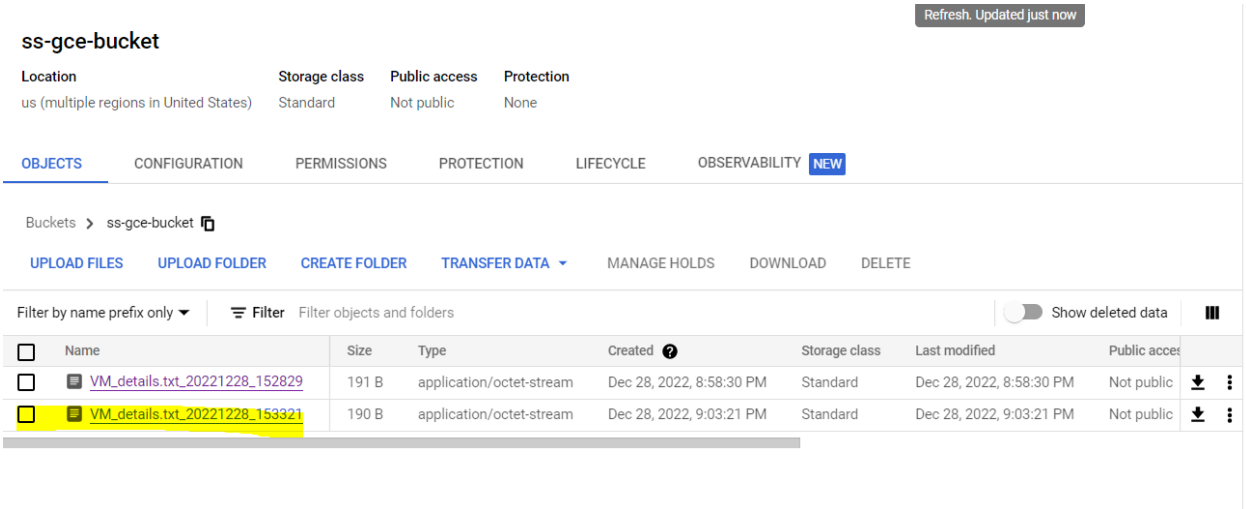
Test Scenario 2: When VM is stopped

- **VM has been stopped**

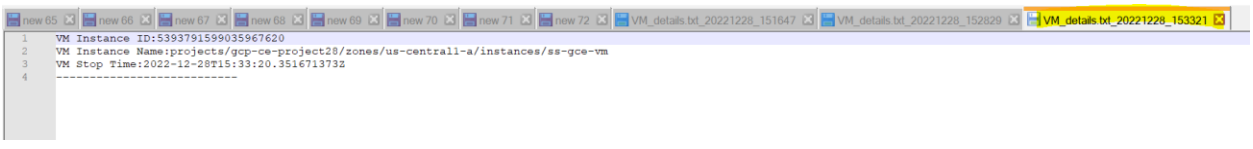


- **Cloud function log has been generated**

- **Text file has been generated and available in the bucket**



- **Downloading and viewing the file**



VM_details.txt_20221228_153321

VM_details.txt_20221228_152829

Source code available in below repo:

https://github.com/satizzzzz/SquareShift_Assignment